Data-Driven Decision Making and Accountability

ABSTRACT

The partnership proposed provides a model for professional development opportunities for K-12 teachers in rural Colorado. The project takes three approaches: 1) train and support new and veteran teacher in systematic school-wide data analysis and problem-solving to improve student achievement; 2) create a culture of support to increase teachers' abilities to teach concepts and skills differently to underserved populations; and 3) develop a sustainable professional development model for teachers in rural schools that overcomes the limitations due to isolation of these communities.

PROJECT DESCRIPTION

The partnership will improve teachers' use of student achievement data to improve instructional practices with an emphasis on the needs of underserved students in the partnership school district. The partnership proposed provides a model for professional development opportunities for K-12 teachers in rural Colorado. **First**, teacher education and arts and science faculty in a rural college will partner with K-12 administrators and teachers in rural schools to train and support new and veteran teachers in systematic school-wide data analysis and problem-solving to improve student achievement. **Second**, teacher education and arts and science faculty members will then work with schools, within the schools' culture and unique needs, to improve the instructional practices of new and veteran teachers and the academic achievement of underserved students. **Third**, the partnership will increase teachers' usage of professional learning communities within schools, through building coaches, peer mediated feedback, and cooperative teaching, to develop a sustainable professional development model for teachers in rural schools.

Project Need

Center 26JT is a rural high-need LEA with 924 students with 319 in poverty with a 35% poverty rate. The school and community of Center have interesting demographics, the town of Center is 50% Hispanic yet 90% of students in the district are Hispanic and 10% Anglo. Approximately 50% of the students enter school with Spanish as their native language. Approximately 20-30% percent of students in

the district are migrant students. The district has a mobility rate of approximately 25%. Montezuma–Cortez RE-1 is a rural LEA with 3,091 students (1,667 low-income) enrolled in 13 schools. It employs 231 teachers and serves the largest population of reservation Native Americans in Colorado.

Refer to Table 1 for the Center 26JT and Montezuma-Cortez RE-1 2005-2006 CSAP results for elementary, middle school, and high school grade levels. Neither school district met the state averages in any category. Rural schools, especially high needs rural schools such as this one, tend to have unique needs and challenges.

Table 1 Center 26JT and Montezuma-Cortez RE-1 Percentage of Students Scoring Proficient or Advanced on the 2005-2006 CSAP

Center 26 JT 2005-06 School Year

	Overall Academic Performance on State Assessments	**Academic Growth of Students**
Haskin Elementary	Low	Stable
Skoglund Middle School	Low	Improvement
Center High School	Low	Improvement

	School	State
Grade 3-5 Reading	46	69
Grade 6-8 Reading	36	67
Grade 9-10 Reading	42	67
Grade 3-5 Writing	27	54
Grade 6-8 Writing	30	56
Grade 9-10 Writing	27	51
Grade 3-5 Math	44	68
Grade 6-8 Math	15	49
Grade 9-10 Math	1	35

Montezuma-Cortez RE-1

	Overall Academic Performance on State Assessments	**Academic Growth of Students**
Downey Elementary School	Low	Stable
Kemper Elementary School	Average	Improvement
Lewis-Arriola Elementary	Average	Significant Decline
Manaugh Elementary School	Low	Stable
Mesa Elementary School	Average	Improvement
Pleasant View Elementary	Low	Stable
Cortez Middle School	Low	Improvement
Montezuma-Cortez High School	Average	Stable

	School	State
Grade 3-5 Reading (Downey Elementary School)	58	69
Grade 3-5 Reading (Kemper Elementary School)	64	69
Grade 3-5 Reading (Lewis-Arriola Elementary School)	56	69
Grade 3-5 Reading (Manaugh Elementary School)	41	69
Grade 3-5 Reading (Mesa Elementary School)	56	69
Grade 3-5 Reading (Pleasant View Elementary School)	44	69
Grade 6-8 Reading (Cortez Middle School)	55	67
Grade 9-10 Reading (Montezuma-Cortez High School)	62	67
Grade 3-5 Writing (Downey Elementary School)	35	54
Grade 3-5 Writing (Kemper Elementary School)	38	54
Grade 3-5 Writing (Lewis-Arriola Elementary School)	47	54
Grade 3-5 Writing (Manaugh Elementary School)	28	55
Grade 3-5 Writing (Mesa Elementary School)	41	54
Grade 3-5 Writing (Pleasant View Elementary School)	12	54
Grade 6-8 Writing (Cortez Middle School)	45	56
Grade 9-10 Writing (Montezuma-Cortez High School)	40	51
Grade 3-5 Math (Downey Elementary School)	60	68
Grade 3-5 Math (Kemper Elementary School)	51	68
Grade 3-5 Math (Lewis-Arriola Elementary School)	62	68
Grade 3-5 Math (Manaugh Elementary School)	40	65
Grade 3-5 Math (Mesa Elementary School)	54	68
Grade 3-5 Math (Pleasant View Elementary School)	19	68
Grade 6-8 Math (Cortez Middle School)	35	49
Grade 9-10 Math (Montezuma-Cortez High School)	21	35

According to *The Secretary's Fourth Annual Report on Teacher Quality: A Highly Qualified Teacher in Every Classroom (2005)*, teachers in classrooms today must be able to:

- Interpret data, including assessment data, to make instructional decisions;
- Adapt and individualize instruction for diverse learners;
- Be prepared to teach in high-need schools; and
- Use 21st-century technology skills.

The new authorization of the Individuals with Disabilities Education Improvement Act (IDEA 2004) also embraces the use of ongoing assessment data to determine if students are responding to interventions or instruction. In this model student achievement data are used to plan instruction based on individualized student strengths and/or challenges. Progress monitoring occurs frequently to document ongoing effectiveness of instruction. The Colorado School-Wide System for Student Success or Response to Intervention is a multi-tiered problem solving approach that addresses academic and behavioral

difficulties of ALL students. At the universal level a teacher provides research-based, high quality instruction to all students. Eighty to ninety percent of the students are in the universal level. In the next targeted level, five to fifteen percent of students are identified as at-risk or who fail to make adequate progress in general education with the provided interventions. At the third tier, or intensive level, interventions are provided to students with intensive needs based on a comprehensive evaluation. "With increased accountability, American schools and the people who work in them are being asked to do something new – to engage in systematic, continuous improvement in the quality of the educational experience of students and to subject themselves to the discipline of measuring their success by the metric of students' academic performance. Most people who currently work in public schools weren't hired to do this work, nor have they been adequately prepared to do it …." (Elmore 2002). In addition, William J. Moloney, Colorado Commissioner of Education, has identified the reading deficit as the most urgent challenge in the state and nation. In letters to college presidents dated July 19, 2006 he stated, "The reading crisis across our nation has brought state education departments into intense conversations with Congress, the U.S. Department of Education, Governors, state legislators, business people, and local superintendents. Several years of "flat" reading scores at both the state (CSAP) and national (NAEP) level have given an added urgency to these discussions. The business community in particular has sounded alarm bells citing stagnant achievement levels as serious threat to America's future competitiveness in a global economy. In all these conversations there is clear agreement on the centrality of reading to student achievement and the indisputable link to the issues of teacher quality."

There are several challenges facing rural teachers in the atmosphere of public school accountability: **First,** how to effectively and efficiently have teachers interpret and translate data from student academic achievement assessments to improve instructional practices and student achievement, with a focus on reading. **Second,** how to increase the teachers' working knowledge of specific instructional strategies to teach concepts and skills differently to underserved populations. **Third,** how to

partner with an institution of higher education while providing the professional development opportunities to teachers in their schools and communities.

Professional Development for Teachers in Isolated Rural Communities

Teachers in rural Colorado face significant and unique limitations in gaining opportunities for professional development. A survey conducted by the partnership team of K–12 school districts located in southwestern Colorado identified considerable challenges for teachers to obtain vitally needed professional development in math and science content and pedagogy. The challenges are:

- geographic isolation of schools;
- small school size, making it difficult for teachers to have dialogues with peers;
- lack of professional development opportunities in the rural area; and,
- inability of financially strapped school districts to provide support for professional development.

Most of the professional development activities in Colorado are offered in the Denver metropolitan area and by universities in urban settings that do not always understand the unique needs of rural schools. The average drive time for teachers in partnership schools to participate in these opportunities is over three hours and involves driving across several mountain ranges and high passes, which can be especially treacherous during the winter.

All of the above issues add to the isolation and lack of interaction that many rural school teachers encounter. *A critical demographic where students are "left behind" is rural areas with small towns scattered across America and in mountainous regions of the West*. According to the USDE, almost 20% of all U.S. students are in rural schools.

A model for enhancing teachers' ability to interpret and translate data from student academic achievement assessments to improve instructional practices and student achievement and increasing the teachers working knowledge of specific strategies to teach concepts and skills differently to underserved populations can be achieved by developing strong partnerships between rural school districts and small baccalaureate colleges serving those rural regions. The National Research Council has emphasized that higher education faculty must assume a greater responsibility for teacher preparation and professional development. The partnership proposed

is based on almost a decade of successful collaborations between the Western State College of Colorado teacher education and arts and science faculty and the teachers and administrators from rural school districts in southwest and western Colorado.

The Partnership

A partnership with Center and Montezuma-Cortez School District has been developed and fostered through a history of collaborations, with the partnership being intensified over the past several years. While this project is in direct partnership with Center and Montezuma-Cortez, opportunities will be developed and offered for LEA's in rural Colorado and results will be adopted into the undergraduate teacher preparation program at Western for improved teacher training.

Partners from Western State College of Colorado include teacher education faculty and arts and science faculty from the Department of Communication Arts, Languages and Literature. As a result of previous partnership activities, the higher education institution (Western State College of Colorado) will provide and/or support professional development opportunities for rural teachers through an interactive professional learning webinar, online opportunities, and/or on-site coaching of newly learned teaching practices

Project Goals and Objectives

The overall goal of this project is to increase student achievement through three project goals:

Goal One: Build staff capacity of new and veteran teachers to make instructional decisions based on assessment data to improve student achievement.

Objective 1a: Host a 3-4 day workshop in the Response to Intervention Problem Solving Model, interpretation and translation of student achievement data, new teacher induction and/or district curriculum.

Objective 1b: Use a coach (Teacher on Special Assignment) to work with building-level teams to implement school-wide, data analysis and problem-solving to increase student achievement.

Objective 1c: Use of a Trainer-of-Trainers model to work with building-level PLCs to implement steps to become proficient in disaggregating and disseminating student achievement data to then identify strengths and weaknesses in instruction.

Objective 1d: Provide support to grade-level teams, individual teachers, and support staff (e.g., substitutes, materials, coaching etc.) for implementation of school-wide data analysis and problem-solving in their classrooms.

Objective 1e: Introduce districts to and expand their use of technologies to facilitate data analysis (i.e., Palm Pilots, Logitech data pens, data warehouse software, ipod, digital video and audio recording etc.)

Goal Two: To create a culture of support to increase teachers' working knowledge and effective implementation of specific strategies to teach concepts and skills differently to underserved populations.

Objective 1a: Use a coach (Teacher on Special Assignment) to work with building level teams and teachers to identify individual student needs, with a focus on underserved populations.

Objective 1b: Provide support for improved instructional strategies based on individual need as defined by data to grade level teams, individual teachers, and support staff (e.g., substitutes, materials etc.).

Objective 1c: Expand teachers' use of technologies in the delivery of differentiated instruction (i.e., palms, ipod, digital video and audio recording, web cameras, messaging software with audio and video capability, smartboards, assistive technologies etc.).

Objective 1d: Establish horizontal Professional Learning Communities as a process for key area identification as defined by data (i.e. options: professional book studies, professional development, video studies, on-line professional development).

Goal Three: Continue to develop and refine (K-12) an articulated guaranteed and viable curriculum aligned with state standards and defined key learning targets and focus questions.

Objective 1a: Provide additional training and time for teachers in their Professional Learning Communities to align state standards with district curriculum and define key learning targets and focus questions

EVALUATION

This initiative will be evaluated by providing valid and reliable data based on a design intended both to document the impacts the initiative has had and the relative strengths and quality of each of its components. Further, we propose to analyze the features of the approach that are associated with the strongest and most robust

outcomes, and the factors that serve to facilitate or impede progress. The following research questions are proposed as the basis for this impact study, with their relevance to each of the specific outcomes of the project and existing partnership change areas:

1. To what extent have the professional development opportunities provided through the partnership strengthened the *new and veteran teaching force*?
2. What percentage of increase was achieved *in K-12 student academic achievement in the area of literacy for underserved populations?*